North Carolina Department of Environment and Natural Resources Division of Waste Management

Michael F. Easley, Governor William G. Ross Jr., Secretary Dexter R. Matthews, Director



August 20, 2003

Mr. Steve E. Mason GeoScience & Technology, P. A. 2050 Northpoint Drive Winston Salem, NC 27106



Subject:

Monitoring Well Replacement at RJR Ash Landfill, Stokes Co.

Dear Mr. Mason,

In regard to the replacement of the damaged downgradient monitoring MW-4 with a new monitoring well, we agree that it seems to be necessary to replace the well in a new location in order to prevent future damage to the new well. The location which you have indicated on the map, which was faxed to Larry Rose of the Solid Waste Section on August 18, 2003, looks like it may be a satisfactory location. When choosing the location of the proposed landfill please keep in mind the following:

- There should not be any ash or other contaminant at the ground surface at the location of the well or at the location where the background precipitation is recharging the rock aquifer.
- Well should be hydraulically upgradient of the landfill and the downgradient monitoring wells and in the same hydrogeological regime

Construction of well should be as follows:

- According to 15A NCAC 2C .0108
- The monitoring well should have a screen of 10 or less feet and should be screened at a groundwater producing fracture. This is assuming that the well will encounter groundwater in fractured rock, as do the existing wells on site.
- Well construction records and boring logs should be submitted to this Section within a reasonable amount of time.

Well abandonment of MW-4 should be as follows:

- According to 15A NCAC 2C .0113
- Considering that the existing monitoring well and grout pack was damaged the existing casing and screen shall be removed and the grouted with bentonite or cement grout the entire length of the well.

Please contact me with questions or comments at (919) 733-0692 extension 345 or by email at ellen.lorscheider@ncmail.net.

Ellen Lorscheider

Solid Waste Section Permitting Hydrogeologist

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cc: Larry Rose, Solid Waste Section George Lamb, RJR